CA2ALSWM
A56
1984/85

ANNUAL REPORT

for the 1984/85 fiscal year

Alberta Special Waste Management Corporation

LEGISLATURE LIBRARY
JUL 11 1986
EDMONTON

86-04633/

"The present generation of Albertans has the obligation and the opportunity to bring about the conversion of industrial and other special wastes to non-objectionable forms ...for the benefit of future generations and for the protection of the environment and public health."

Alberta
ENVIRONMENT

Office of the Minister

132 Legislature Building, Edmonton, Alberta, Canada T5K 2B6 403/427-2391

November, 1985

Honourable G. Amerongen
Speaker of the Legislative Assembly
325 Legislature Building
Edmonton, Alberta
T5K 2B6

Sir:

I have the honour to present the first annual report of the Alberta Special Waste Management Corporation, which covers the fiscal year ending March 31, 1985.

Respectfully submitted,

Fred D. Bradley
Minister of the Environment

Alberta Special Waste Management Corporation

900, 10909 JASPER AVE. EDMONTON, ALBERTA, CANADA T5J 3L9 (403) 422-5029

November, 1985

Honourable Fred D. Bradley
Minister
Alberta Environment
132 Legislature Building
Edmonton, Alberta
T5K 2B6

Sir:

I have the honour to present the first annual report of the Alberta Special Waste Management Corporation, which covers the fiscal year ending March 31, 1985.

Respectfully submitted,

John P.C. Elson, P.Eng.
Chairman and Chief Executive Officer

Message from the Chairman

I am pleased to submit the first Annual Report of the Alberta Special Waste Management Corporation, established under the Special Waste Management Corporation Act in April of 1984.

The safe and proper management of special or hazardous waste is a world-scale challenge that is facing all jurisdictions within North America. Alberta is foremost in facing the challenge. The establishment of the Crown Corporation to oversee the planning, development and management of a system to meet the needs of Albertans and Alberta generators was a major step in this overall program which started in 1979. Since 1979, Alberta has gone through an extensive siting program which resulted in the identification of a site near the Town of Swan Hills in northwestern Alberta. The successful siting is a tribute to those who participated in the program and to the community of Swan Hills for indicating its willingness to be part of this very important Alberta system.

Since the establishment of the Corporation in April, and the appointment of its seven Board members in April, May and June of 1984, we have had a busy year. The Corporation completed a successful recruiting program and now has a permanent staff of seven in Edmonton and a contract person in Swan Hills. It has the servicing of the site near Swan Hills well in hand with the road construction, the provision of utilities, and the overall system planning underway.

Considerable time was spent in negotiating Letters of Intent and Memorandum of Agreement with Chem-Security Ltd., the company that was identified in 1982 to build, own and operate the Alberta facility near Swan Hills. In February and March of 1984 the site in Swan Hills was cleared by CSL as part of their commitment under the Letters of Intent, and the Memorandum of Agreement which were signed in late 1984 and early 1985.

The year also saw amendments to the Hazardous Chemicals Act, which clarified the responsibilities and obligations of the Alberta Special Waste Management Corporation. Early in 1984 we also saw the proclamation of regulations under the Hazardous Chemicals Act, which is the first step in a comprehensive set of regulations for the Province of Alberta. The Minister of Environment also appointed a Hazardous Chemicals Advisory Committee under the Hazardous Chemicals Act, with the prime responsibility of reviewing the regulations as issued in March and recommending a comprehensive set of regulations and guidelines for the management of special or hazardous waste within the Province of Alberta. This Committee commenced its deliberations early in 1985.

Experience in other jurisdictions has shown that the successful operation of a comprehensive waste management system very much depends upon an effective set of regulations and their proper enforcement. Alberta has gone a major step forward in the establishment of the Hazardous Chemicals Advisory Committee to ensure that this will take place.

Because of its role of overseeing the planning for and development of the system, the Corporation has found it necessary to establish a broad network of contacts with various government departments and agencies whose activities are directly involved with or impact on the Alberta system. We are very pleased with the cooperation which we have received from all concerned government departments and agencies.

A key component to the Alberta system is a very open approach to the communications associated with the critical planning and definition of the system. The Corporation has placed major emphasis on keeping people informed with respect to its plans and programs. Newsletters have been launched and meetings are held with interested groups and communities. The Corporation has also launched an extensive series of baseline and background studies to complement those that had already been completed as part of the siting program. These studies will ensure an adequate baseline of data to enable comprehensive ongoing monitoring of the plant operation.

The plant and system are being planned to meet the needs of Alberta generators. It has been estimated that the plant itself will be processing between 20,000 and 40,000 metric tonnes of hazardous or special waste each year. Because of the nature of Alberta industry, it is anticipated that 75% of the plant capacity will be directed towards the treatment of organic waste streams with approximately 25% to the treatment of inorganic. It is anticipated that the first phases of the plant will be completed sometime in 1987.

All of this could not have been accomplished without the tremendous cooperation and effort by the Corporation staff and by the willingness of the members of the Corporation to give unstintingly of their time. We feel we have been very fortunate with the members who have been appointed by the Province of Alberta to the Corporation. They represent a diversity of interests and geographic representation which is important to the planning of the system for Alberta.

We are also very pleased with the cooperation that the Corporation has received from the people of Swan Hills, the Town Council, the local citizens' committee and various community organizations. We feel that the support of the Town of Swan Hills and I.D. 17 is extremely important to our program. I.D. 17 has also showed the best of cooperation to the Corporation in all aspects of our dealings with them.

In conclusion, I can only stress that the Corporation has benefitted from the effort of dozens of people and thousands of hours that went into the overall planning for and siting of the Alberta facility, a program which commenced in 1979 and 1980. The work that was done between 1979 and 1984 when the Corporation was established, has greatly facilitated the planning for and the launching of the efforts to realize a system for Alberta's needs. The invaluable work that was done, together with the very committed staff and members of the Corporation, has made it possible to submit a report in our first year which outlines a considerable number of very significant accomplishments in realizing the comprehensive special or hazardous waste management system for the Province of Alberta.

— John P.C. Elson

Siting — A Unique Achievement

In March, 1984, the Minister of the Environment, Fred D. Bradley, announced that a site for a special waste treatment facility had been selected near Swan Hills.

In April, with the proclamation of the Special Waste Management Corporation Act, he named the Chairman.

These two events provided the link between a five-year siting program carried out by the Department of the Environment and the initiation of the Alberta Special Waste Management System to protect the environment, health and safety of the public and enhance industrial operations.

The question of special (hazardous) waste management had emerged in Alberta in the fall of 1979, when a private company attempted to site a treatment facility, first in Fort Saskatchewan and then in Two Hills.

An alarmed public rejected the development. The government, realizing the complexities of the issue and the difficulties encountered elsewhere, established the Hazardous Waste Management Committee with three representatives of Alberta Environment and three private citizens. Their report on the Alberta hazardous waste situation would form the basis for a moratorium on off-site treatment facility development and the Environment Council of Alberta's public hearings to be held throughout the province. Its recommendations were reported in 1980.

Next, the Hazardous Waste Team was formed, with private citizens again joining government personnel to ensure public input. The Team initiated an innovative province-wide awareness program to identify waste problems and involve the public in problem analysis and review of alternate solutions, prior to any site selection. Information meetings were held in more than 70 communities, and local committees were formed. Briefings were also held with planning commissions and local authorities to explain the siting criteria. A constraint mapping program eliminated areas where physical criteria could not be met. Government policy specified that a future site would have to meet environmental criteria and would need to be acceptable to the community in which it was located.

After the information program, five candidate communities invited test drilling to determine soil and groundwater conditions. Plebiscites and public opinion polls were held; the towns Ryley and Swan Hills were strongly in favour of having a facility. The government, acting on its stated intention of making the final choice, decided on Swan Hills, announcing its decision in March, 1984.

In 1982, Alberta Environment had called for proposals from private industry to own, construct and operate the treatment facility. From 19 submissions, an international selection panel chose the company, with whom detailed negotiations are now being pursued.

So the unique Alberta model emerged with three key components: one, a Crown Corporation to oversee an Alberta system, including plant design and construction, and to provide a Crown-owned site complete with utilities; two, a private company developer, owner and operator wherever practicable; and three, a comprehensive but dynamic legislative and regulatory framework through various government departments monitoring and enforcing current and future acts and regulations.

Organization and Administration

The public had made its wishes known regarding participation in hazardous or special waste management. So the Chairman, and six members appointed to the Board on May 2, 1984, represented a wide range of interests and experience. The Board immediately set to work on policy recommendations and the agreements needed to deliver utilities to the site, construct nine kilometres of road, coordinate activities with the developer, and continue to support and inform the local community. The Corporation hired six officers and staff members. Head office was established in Edmonton, and an operational office in Swan Hills.

Agreements

The 320-acre parcel of crown land (W1/2-6-67-8-W5) at Swan Hills, with a surrounding half-mile buffer, was purchased by the Alberta Special Waste Management Corporation from Alberta Energy and Natural Resources. The site will be leased to the plant developer, enabling the Crown to hold the land in perpetuity to provide continuing protection to the environment during and after the lifespan of the plant.

In December, 1984, to meet an Alberta government preference of Canadian ownership, the developer was purchased from the U.S.-based company, Chemical Waste Management, Incorporated, by Bow Valley Resource Services Limited of Calgary. A Technical Services Agreement was entered into with the former parent company to allow access to technology and experience. The developer can choose technology for Alberta and benefit from the experience of other national and international sources, subject to Corporation approval.

The Corporation and the developer signed a "Memorandum of Intent" and then an "Interim Agreement", enabling plant development to proceed.

Corporation Activities

The Alberta Special Waste Management Corporation assumes responsibility for planning the entire Alberta System, which includes transfer and collection centres, transportation, authorization for off-site operations, as well as the development of the Swan Hills treatment facility.

Utilities and Road Access to the Swan Hills Site

The Corporation, through contracts, planned the nine kilometres of road required to access the site. Construction began during the winter. The site itself was also cleared during the winter. Utility companies were contracted to supply the natural gas, electric power and telephone. A variety of options for process and domestic water supply were investigated, including water piped from Swan Hills and local water supply. Discussions were begun with the town of Swan Hills about possible purchase of treated water. Locally, a search was carried on for suitable aquifers capable of supplying sufficient volumes for plant operation.

Baseline Data

Government and Corporation policy dictated that baseline data would be collected prior to the commencement of operations. A thorough monitoring program was initiated to establish indigenous environmental data. This information and evaluation enhanced the monitoring (particularly of surface and groundwater) previously conducted by Alberta Environment as part of the site selection program. An inventory of vegetation and wildlife was completed. Pre-development air monitoring was planned and an agreement was reached on the design and operation of an air quality monitor and weather data recorder. A study of organic air pollutants was also contracted with the University of Calgary, Kananaskis Centre for Environmental Research.

Deep Well Studies

Most operating Hazardous Waste Treatment facilities discharge their treated liquid residues either to adjoining water bodies or to municipal sewage systems. To help ensure environmental quality in final liquid disposal, and in the absence of receiving water-bodies or systems, the viability of deep well injection of these treated liquids was examined through contracts with the Alberta Research Council and a geological consultant.

Applications were made to the Energy Resources Conservation Board for the early drilling of a deep well, as only actual drilling would confirm the necessary technical data on injection rates and formation characteristics. (This data would enable proper design of surface facilities, processes and equipment, to ensure any treated liquid discharges would be compatible with formation characteristics.)

Technology Appraisal

For several decades, successful hazardous waste management has been practiced in Europe, particularly Germany and Denmark, as well as North America. Realizing the Alberta System could benefit from others' experience, several members of the Corporation Staff and Board, accompanied by the mayor of Swan Hills, and representatives from the developer, visited facilities in Germany, Switzerland and Denmark. They also attended an International Symposium on Hazardous Waste Management in Denmark.

Corporation, developer and community representatives also inspected North American facilities, including secure landfill operations, a liquid waste transfer station and incinerator, a stabilization process for inorganics, a plasma arc process under development, a drum decanting facility, research laboratories, and a rotary kiln incinerator for organics.

New plants and/or technologies were also examined in Belgium and Finland.

Process Selection

Final decisions on which of the various treatment options will be utilized at the Swan Hills plant will be made by joint selection committees, which will include representatives from the developer and the Corporation, and selected expert advisers. Processes will include state-of-the-art high-temperature treatment for organics, and various physical-chemical treatment processes for inorganics. Ultimate disposal of treated solids and liquids will be determined in compliance with sound environmental practice and applicable legislation and regulations. For example, the secure landfill will receive only treated solid residues from treatment processes, and inert solids. Treated liquids will be injected into an appropriate formation, or fully treated prior to approved surface discharge, if deep well testing is unsuccessful.

Transportation

To develop the safest possible transportation system, the Corporation has undertaken a multi-phase study on transportation routes, related risks, and preventative measures. Through co-operation with Alberta Disaster Services, Alberta Environment and Alberta Transportation, and in keeping with provincial and federal regulations, the Corporation will require transporter insurance and bonding, driver training, approved packaging and containerization, proper loading and unloading procedures, pre-approval of shipment by the treatment facility, manifest tracking, documentation and placarding, and coordinated emergency response programs. The Corporation will maintain its role as facilitator; the private trucking industry will participate (depending upon vehicle suitability, market competitiveness, and compliance with all transportation requirements and good industry practice) under the direct management of the developer.

Communications and Community Relations

An active, effective community relations and communications program was recognized as an essential ingredient of the siting program. It remains a key element as development proceeds. The Corporation is committed to open and frequent communication and accessibility to the news media on the Alberta program and, in particular, with the Town of Swan Hills and the surrounding region.

A number of specific activities was undertaken: the development of a corporate logo and signature; advertisements of Board and staff appointments in selected newspapers; the introduction in October of a monthly newsletter; and news releases for each contract.

The Corporation opened an office in Swan Hills to serve both as an information source and a coordination centre for contractors involved in offsite service construction. A series of displays, accompanied by detailed hand-outs, was circulated in the town and nearby communities. A toll-free information line (1-800-272-8873) was installed for Albertans needing direct access and information.

A booklet describing the Alberta System and the roles of the Corporation, the plant's private owner, and the government was prepared and widely distributed.

In-person briefings proved valuable and were held frequently as backgrounders for media and with weekly newspaper editors and reporters throughout the Province and region. Consultation with local authorities was on-going (viz. Swan Hills, Ft. Assiniboine, Barrhead, Westlock, I.D. 17) and participation in local fairs and special events was encouraged.

A local committee was organized in Swan Hills in February to provide an information link between the community at large, the Corporation and the developer. This group supplements the on-going contact with the Swan Hills town council. Local committee members meet monthly to study treatment technology, monitoring programs, legislative and regulatory programs, and to receive program updates. They became an information base to their own community. They are responsible for forwarding concerns and suggestions to the Corporation and the developer.

As well, a local council member was appointed to the Corporation Board to represent the community's interests and ensure Swan Hills has a voice in Corporation policy making.

In response to the wide interest in the Alberta program and the issue of waste management in general, the Board endorsed and agreed to jointly fund a Solid Waste Environmental Education Program (SWEEP). The program, developed by Alberta Environment, will be made available initially to schools in the Swan Hills area.

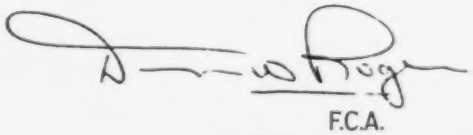
Financial Statements

Auditor's Report

To the Members of the
Alberta Special Waste Management Corporation

I have examined the balance sheet of the Alberta Special Waste Management Corporation as at March 31, 1985 and the statement of income and expenditure for the year then ended. My examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as I considered necessary in the circumstances.

In my opinion, these financial statements present fairly the financial position of the Corporation as at March 31, 1985 and the results of its operations for the year then ended in accordance with the disclosed basis of accounting, considered appropriate in the circumstances, as described in Note 2 to the financial statements.



Edmonton, Alberta
July 26, 1985

F.C.A.
Auditor General

Balance Sheet

As At March 31, 1985

Assets	(thousands of dollars)
Current:	
Cash (Note 3)	$2,854
Accounts receivable	1
Accrued interest receivable	89
	2,944
Fixed assets:	
Furniture, fixtures and equipment	16
Computer equipment	33
Land	261
	310
Other assets (Note 4)	219
	$3,473
Liabilities and Surplus	
Accounts payable	$ 35
Capital surplus	310
Operating surplus	3,128
	$3,473

The accompanying notes are part of these financial statements.

Statement of Income and Expenditure

For The Year Ended March 31, 1985

		(thousands of dollars)
Income		
Grant from the Province of Alberta, Department of Environment	$3,885	
Interest earnings	132	
		$4,017
Expenditure		
Fixed asset purchases	310	
Salaries and employee benefits	212	
External consulting services	168	
Recruitment and relocation costs	51	
Supply and services	50	
Travel	40	
Members' honorarium and expenses	35	
Advisory Committee expenses	16	
Miscellaneous	7	
		889
Net income for the year		$3,128

Notes To The Financial Statements

For The Year Ended March 31, 1985

Note 1 Authority

The Alberta Special Waste Management Corporation operates under the authority of the Special Waste Management Act, Chapter S-21.5, Statutes of Alberta 1982, which was proclaimed and came into force on April 1, 1984.

Note 2 Significant Accounting Policies

a) These financial statements have been prepared in accordance with generally accepted accounting principles except that the cost of fixed assets is charged to expenditure in the year of acquisition. Fixed assets are shown on the balance sheet at cost with a corresponding credit shown as capital surplus.

b) Premises and basic office furnishings are provided by the Province of Alberta. These assets and certain administrative costs are provided at no charge and accordingly are not reflected in these financial statements.

c) A statement of changes in financial position has not been provided as disclosure in these financial statements is considered adequate.

Note 3 Cash

Cash consists of deposits in the Consolidated Cash Investment Trust Fund of the Province of Alberta.

Note 4 Other Assets

Other assets comprise the costs of an injection well and environmental monitoring systems which will be sold to the operator of the future Swan Hills waste disposal facility.

Note 5 Approval of Financial Statements

These financial statements have been approved by management.

Alberta Special Waste Management Corporation

Board Members

John P.C. Elson
Chairman, Edmonton

R. Lorne Mick
Vice-Chairman, Innisfail

Fred E. Feduniak
Swan Hills

Dr. Walter E. Harris
Edmonton

Bert M. Huffman
Edmonton

William J. Mooney
Calgary

William K. Ross
Calgary

Brenda P. Nelson
Secretary to the Corporation

Officers and Staff of the Corporation

John P. Elson
Chief Executive Officer

Kenneth J. Simpson
Senior Vice President, System Development and Operations

Jacqueline B. Champion
Vice President, Communications

Brenda P. Nelson
Manager, Finance and Administration and Secretary to the Corporation

Dr. Jennifer McQuaid-Cook
Corporate Planner

Sandra E. Bishop
Secretary

Judy Augustin
Receptionist

Memberships

Chamber of Commerce, Edmonton
Chamber of Commerce, Swan Hills
Hazardous Waste Treatment Council
Consortium of State Hazardous Waste Siting Authorities
National Tank Truck Drivers, Inc.
Governmental Refuse Collection and Disposal Association
National Solid Waste Management Association
Air Pollution Control Association

Swan Hills Local Citizens Committee

Graeme Jenks
Chairman

Joan Butler

Marcie Giroux

Bob Wilson

Swan Hills Office

William Hudema